

Some *Phyllhermannia* Berlese, 1917 from New Zealand (Acaria: Oribatei)

By

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Abstract. Four species of the oribatid genus *Phyllhermannia* Berlese, 1917 found in New Zealand are described. One of them, *P. forsteri* sp. n. is new to science.

In a recent work S. WOAS (1981) gave a critical survey on the family Hermanniidae SELLNICK, 1928. He tried to evaluate all the so far described species, but he could fulfil this task as far as the original descriptions allowed. The ventral side of the 4 *Phyllhermannia* species known from New Zealand was inadequately delineated, neither is there a good description, consequently a comparative examination of the epimeral and genito-ventral regions was impossible. However, this work would be very important in the case of *Phyllhermannia phyllophora* (MICHAEL, 1908), since it was nominated as the type-species of the genus *Phyllhermannia* erected by BERLESE.

FORSTER, who has undying merits in the exploration of the Arthropoda fauna of New Zealand, sent us to Hungary a representative BERLESE material with the goal to have an identified collection of oribatid mites of New Zealand. The study of this materials has been undertaken along with the elaboration of oribatids of the Pacific Region. Fortunately enough, three of the so far known 4 species of New Zealand were discovered again: *P. phyllophora*, *P. rubra* and *P. foliata*, only the species *P. mollis* was not found. On the other hand, I found a new species: *P. forsteri* sp. n. Hereunder I give some complementary notes to the three known species and the description of the new species, along with the drawings of the ventral sides.

Phyllhermannia phyllophora (MICHAEL, 1908)

Epimeral setal formula: 3—1—3—5. This same formula is found in the following species: *P. forsteri*, *foliata*, *dentata*, *glabra*, *tuberculata*, *mauritii*, *modesta* and *pacifica*. This combination is the most common one in the group. Among the epimeral setae the distal ones are almost always longer than those in proximal

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position. The length differences are especially striking in epimeres 4. Here seta 2 very short, 3–5 extremely long and curved. The genital setae, characteristic for the family, arranged in two longitudinal rows: the 5 setae in the inner row much shorter than those 3 setae in the outer row. The genital and anal plates are separated from each other.

The formation of the epimeral region is striking. Apodemata 1 and 2 here too, as in the other species, meet in mid-line, but from the sejugal apodemes the apodemata and the epimeres diverge from one another forming a broad, triangular "sternal plate". The same in *P. rubra* is much less developed. The prodorsum and the notogaster are wholly corresponding to the drawing of HAMMER, though the notogastral setae are comparatively longer.

Material examined: Waipona Forest, 6.1. 1967, R.R. FORSTER, 10 specimens; Slowly Showground, Masterton, 8.3. 1966, C. L. WILTON, 7 specimens; Kereri, ex leafmould, 12.3. 1966, C. L. WILTON, 5 specimens.

Phyllhermannia foliata HAMMER, 1966

Epimeral setal formula: 3–1–3–5. Seta 4 shorter and originating somewhat forward than do setae 2–5; from among the latter seta 2 is somewhat removed from 3, than setae 3, 4 and 5 from one another. The genital setae are arranged in two rows: the outer 3 setae are scarcely longer than the inner 5 setae, all genital setae setiform. The genital and anal plates are well separated from each other.

Material examined: Slowly Showground, Masterton, 8. 3. 1966, C. L. WILTON, 3 specimens.

Phyllhermannia rubra HAMMER, 1966

Epimeral setal formula: 3–1–4–4. Species that have 4 setae on epimeres 3 are *P. gladiata* and *P. forsteri*. The sejugal apodeme and the apodemes 3 and 4 are not meeting enclosing a small „sternal plate”, though this is much smaller than the same in *P. phyllophora*. The seta 1 in epimeres 3 is much shorter (1 a) than setae 2–4 and originating far from them. Setae 1 and 2 of epimeres 4 are short, setae 3 and 4 are long, 2 and 3 originating far from each other. The genital and the anal plates are separated from each other.

Material examined: Waipona Forest, 6. 1. 1967, R. R. FORSTER, 2 specimens.

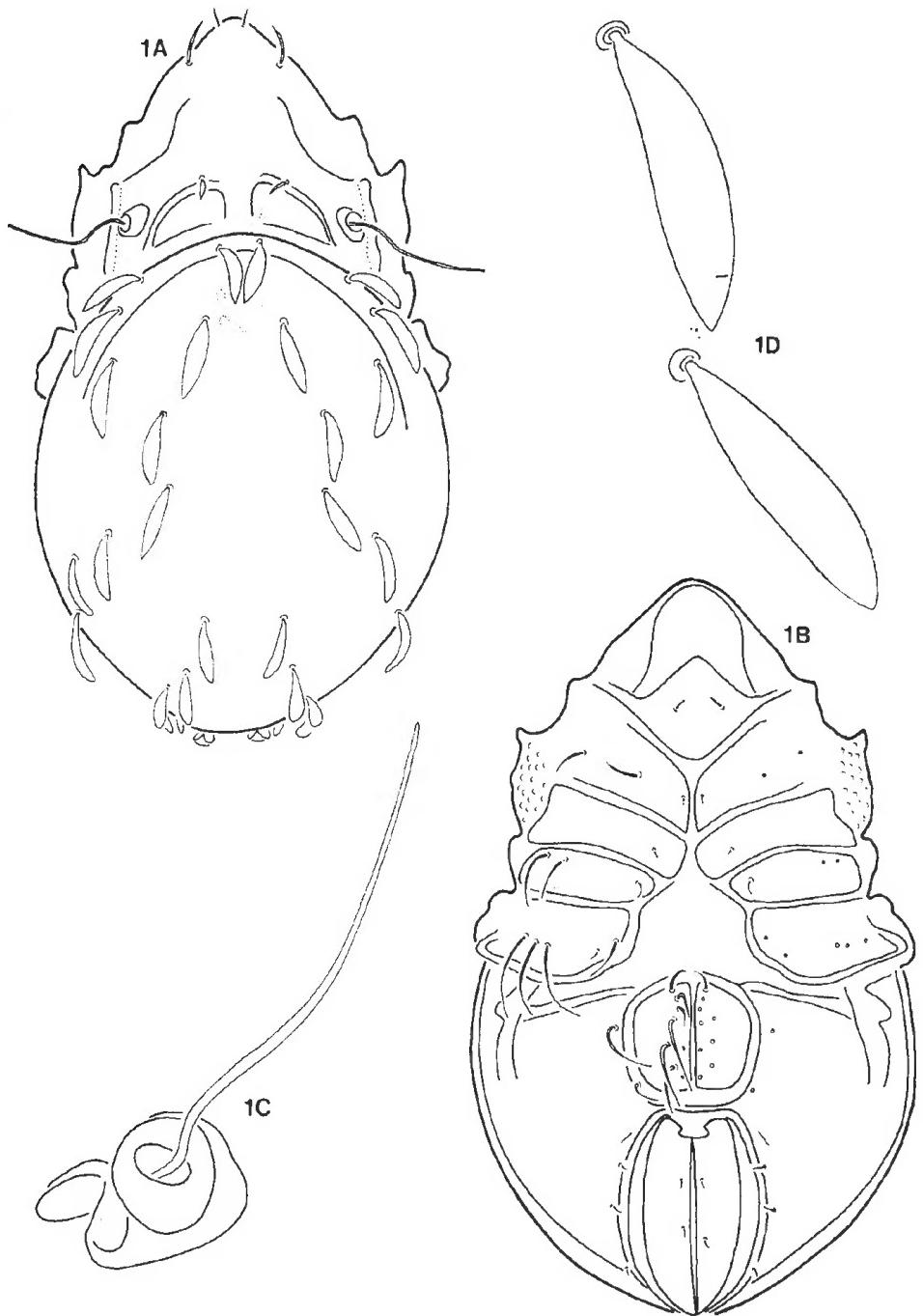
Phyllhermannia forsteri sp. n.

Length: 791–918 µm; width: 451–566 µm.

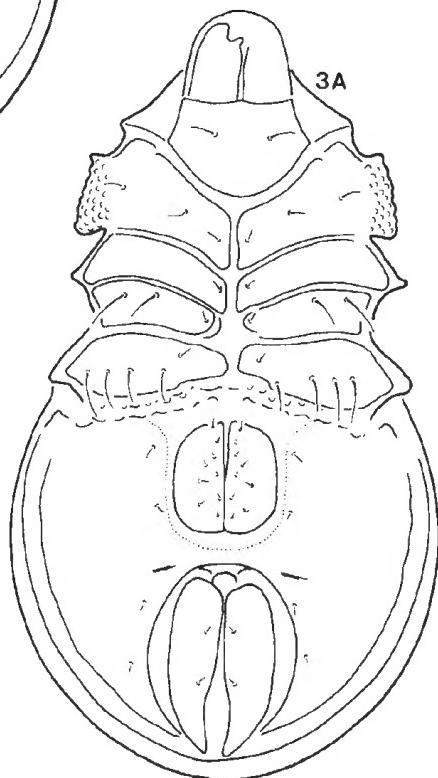
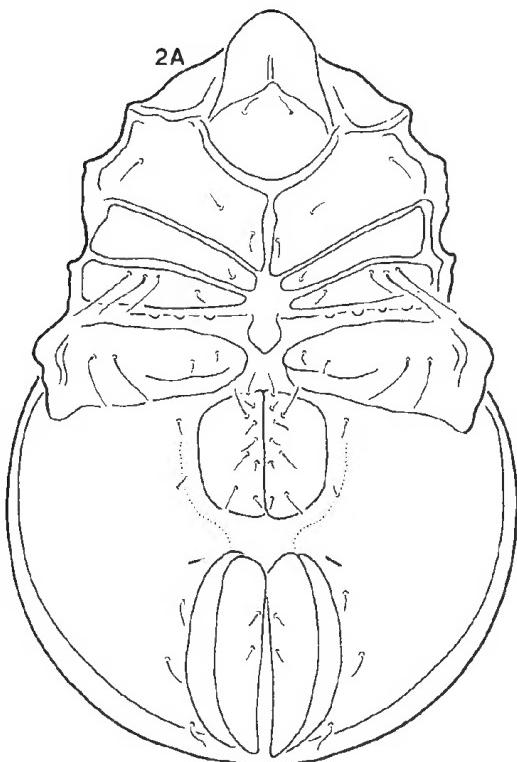
Prodorsum: Sensillus bacilliform, straight, on the apical third sparsely and very finely aciculate. Interlamellar setae short, pointed, blade-like. Lamellar and rostral setae short, setiform, straight. Interlamellar shield semicircular, densely punctulate.

Notogaster: 16 pairs of short, pointed, blade-like notogastral setae. Margins of notogastral setae smooth. There is an arched chitinous crest each at the anterior part of notogaster between the setae c and d.

Ventral plate: Epimeral setal formula: 3–1–4–5. Epimeral setae 1 a and 1 b short, 1 c longer. Epimeral setae 3 a short, 3 b, 3 c, 3 d much longer. Distance

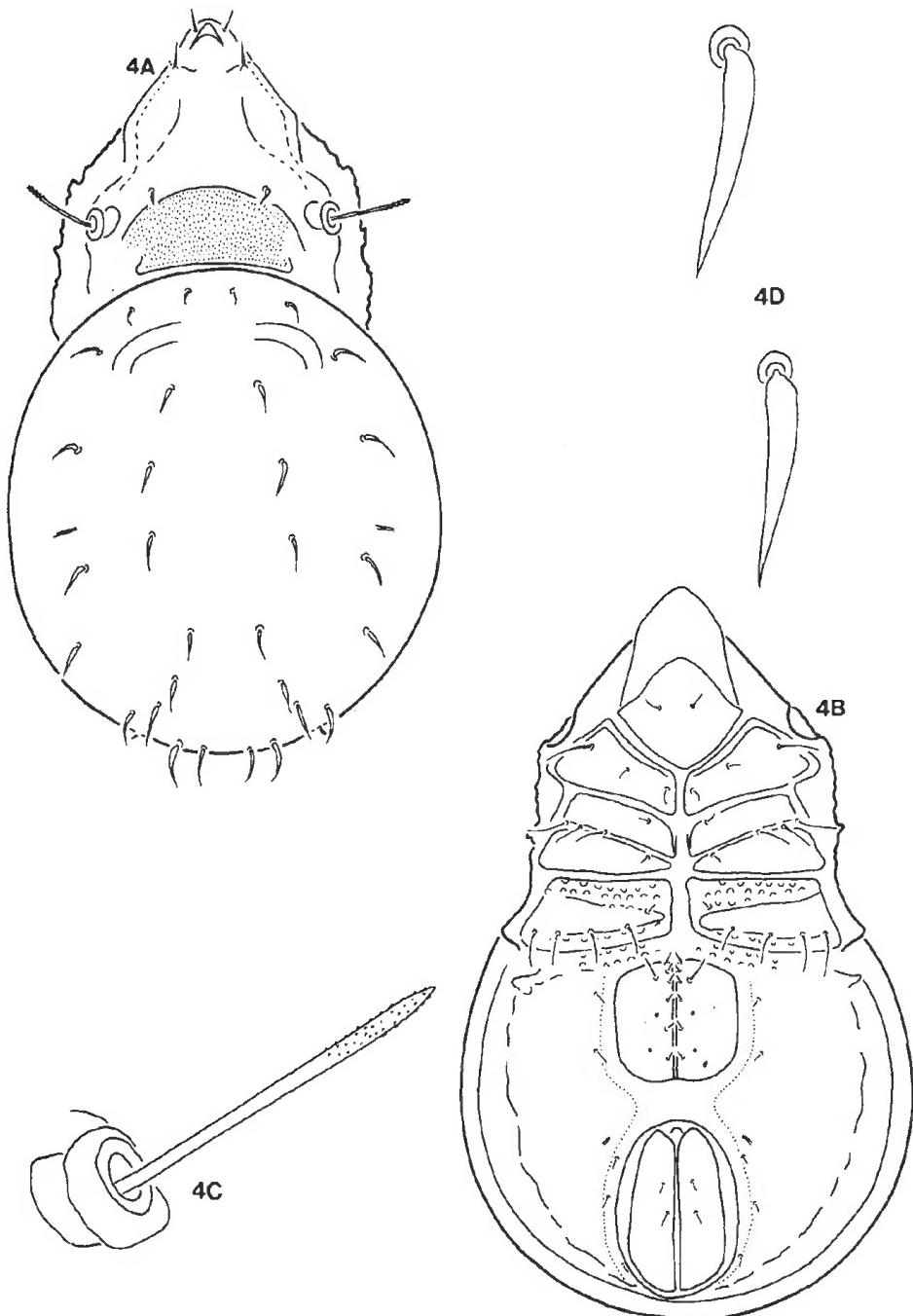


Figs. 1 A – D. *Phyllhermannia phyllophora* (MICHAEL, 1908). A: dorsal; B: ventral; C: sensillus; D: notogastral setae dm and dp



Figs. 2 A - B. *Phyllhermannia rubra* HAMMER, 1966. A: ventral; B: notogastral setae dm and dp. —

Figs. 3 A - B. *Phyllhermannia foliata* HAMMER, 1966. A: ventral; B: notogastral seta dm



Figs. 4 A – D. *Phyllhermannia forsteri* sp. n. A: dorsal; B: ventral; C: sensillus; D: notogastral setae dm and dp

between setae 3 a and 3 b longer than distance between 3 b and 3 d. Epimeral setae 4 much shorter than 4 b, 4 c, 4 d and 4 e. Anterior and posterior margin of epimeres 4 foveolate. Interior line of 5 genital setae with very short, setiform setae; exterior line of 3 genital setae with longer, but setiform setae. 2 pairs of short, setiform aggenital, 3 pairs of adanal, 2 pairs of anal setae. Pori iad short, oblique. Genital and anal plates widely separated.

Locus typicus: New Zealand, Ross Creek, 29. 1. 1966, J. SUTHERLAND, 1 holotype, 4 paratypes; Slowy Showground, Masterton, 8. 3. 1966, C. L. WILTON, 1 paratype.

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